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BIENNIAL REPORT
1975 - 1977

COUNTY OF LOS ANGELES
Department of
ARBORETA & BOTANIC GARDENS

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DIRECTOR

LOS ANGELES STATE AND COUNTY ARBORETUM

DESCANSO GARDENS

SOUTH COAST BOTANIC GARDEN



COUNTY OF LOS ANGELES
DEPARTMENT OF
ARBORETA AND BOTANIC GARDENS

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FRANCIS CHING
DIRECTOR

June 15, 1978

Honorable Board of Supervisors
383 Hall of Administration
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Gentlemen:

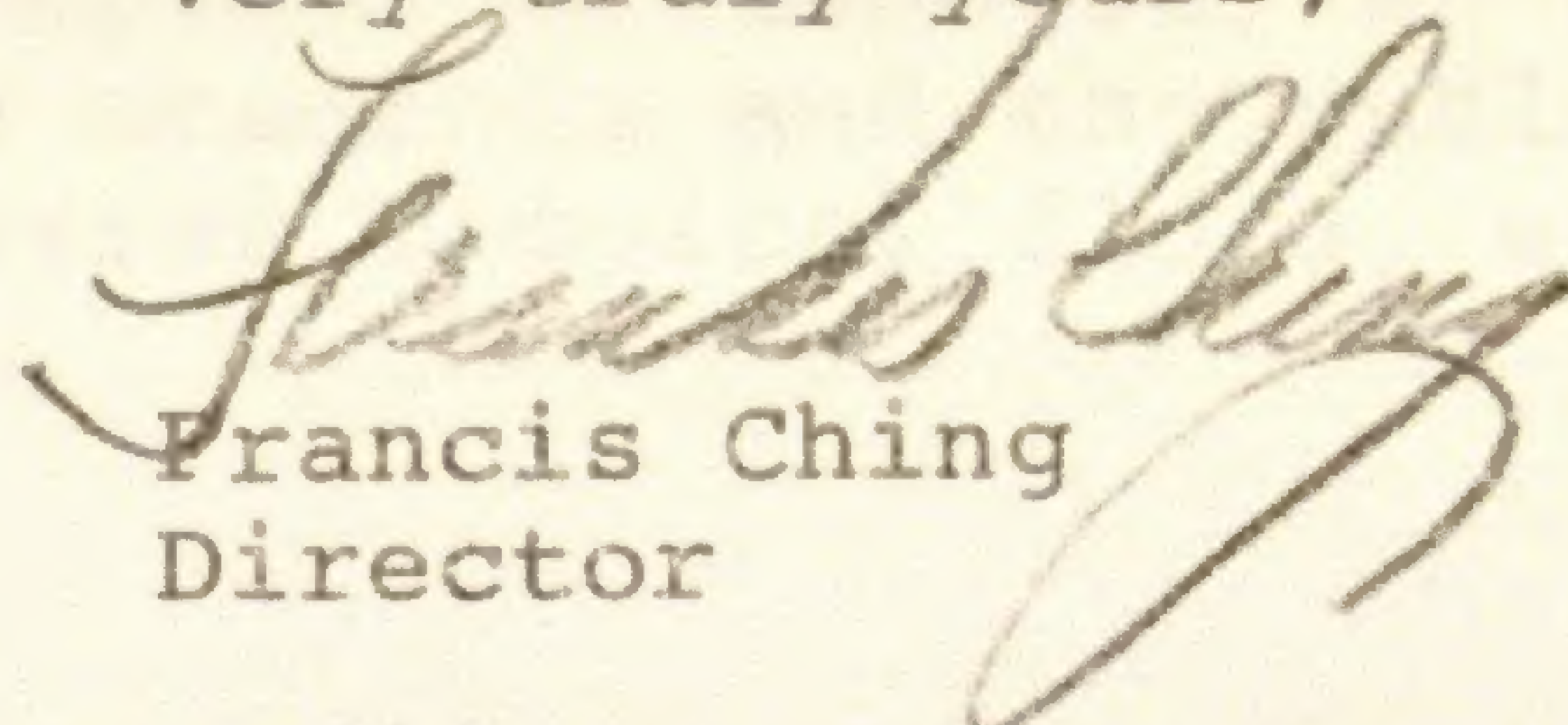
Continuing progress was made by this Department in the 1975-77 biennium in major programs and activities despite a significant reduction in County staffing. This was made possible in part by the employment of CETA workers but more importantly by the expansion of the volunteer programs at each of our gardens.

Major developments at the Los Angeles State and County Arboretum included the creation of the Prehistoric and Jungle Garden and the construction and opening of the Tropical Greenhouse. At South Coast Botanic Garden, the years of planning and development of the garden culminated in the construction of the Public Services and Administration Center. As is true with most Department developmental projects, joint funding for these projects, public and private, was involved. In this regard, the California Arboretum Foundation pledged \$500,000 toward a proposed new Hall of Environmental Education for the Arboretum and launched an ambitious fund raising effort toward this goal during the biennium.

Descanso Gardens Guild and the South Coast Botanic Garden Foundation have likewise undertaken fund raising programs for Capital Projects and garden improvement programs.

Again, I wish to extend my sincere appreciation to our supporting organizations--the California Arboretum Foundation, Inc.; Descanso Gardens Guild; Southern California Camellia Council; and South Coast Botanic Garden Foundation as well as to the Board of Governors and the staff for their continued cooperation and support.

Very truly yours,


Francis Ching
Director

FC:jlk

LOS ANGELES STATE AND COUNTY ARBORETUM

Despite severe budget cutbacks during this biennial period, major new programs and projects all oriented toward public services and education have been initiated or completed. The assistance of the California Arboretum Foundation has enabled the completion of many projects and programs.

Prehistoric and Jungle Garden

For many years, a two-acre area bordering the LASCA Lagoon was covered with a tangled, overgrown mass of shrubs, grasses, and vines that crawled high into the trees. Unwanted and numerous paths were created by visitors tramping through the undergrowth, impacting and gutting the earth as they went. Early in 1974, a long-term project to develop a prehistoric and jungle garden in the area was planned. The project involved clearing out about a half-acre section, bringing in sand for mounding and contouring, acquiring plants, and constructing a pavilion with educational display cases.

Two major parts of the project were completed in this biennium. One was the acquisition and planting of cycads, ferns, dawn redwood, ginkgo, magnolia and other plants having a prehistoric lineage. The Arboretum's prehistoric garden contains more than 50 species of nine of the ten known genera of cycads. Since large collections of cycads, either public or private, are uncommon, and since many species of cycads are on, or close to being on, the list of endangered species, the Arboretum collection is of particular significance extending beyond the fact that the entire area constitutes an educational resource of inestimable value. The other major project was the construction of a pavilion resting above ground on pilings and situated so as to fit into the surrounding environment almost unnoticed. Within the pavilion there are fifteen full-panel graphic displays. The first to greet the visitor traces the comparative evolution of plant and animal life with geologic time. Included among the other displays is a listing of the geologic periods, jungles of the world, plants in the Ice Age, a listing of cycad genera and species, and a listing with drawings of the dominant plants in the Arboretum jungle and a display depicting the problems that civilization have wrought at the expense of plant life. Other smaller graphic displays may be seen along the 700 foot jungle trail.

Tropical and Begonia Greenhouses

Construction of the new Tropical Greenhouse, an educational resource designed to provide students and the public with the opportunity to study and observe tropical flora, was completed in

the spring of 1975. The interior landscaping was largely completed in this biennium. The work included construction of the circulating pools, grading, stream and soil preparation, and planting of ferns, orchids, bromeliads, vanilla vines, anthuriums, crotons, cordyline, cycads, and other tropical and subtropical plants.

The interior of the adjoining Begonia House was relandscaped so as to afford visitors a closer and more orderly view of the collection in a natural setting. A new entrance path to the Begonia House and a new path connecting it with the Tropical Greenhouse were constructed so as to provide easier access to these structures which, together with the Orchid House next door, contain some of the most outstanding plant collections in the country.

San Jose Creek Test Station

In cooperation with the County Sanitation District, the Department utilizes a 17-acre plot of ground at Whittier Narrows for various research projects. In this biennial period the installation of a sprinkler system utilizing both domestic and sewage water was completed, the soil rototilled, and 3,000 crape myrtles (*Lagerstroemia*) planted. The crape myrtles are hybridized seedlings being tested for their resistance to powdery mildew, improved flower form, and for new flower variations.

Entranceway

The forecourt lawn at the Arboretum entranceway was regraded and planted with Santa Ana, a hybrid Bermuda grass. Eleven floss silk tree cultivars (*Chorisia speciosa*), all Arboretum introductions consisting of Lasca Beauty, Los Angeles Beautiful, and September Splendor, were planted in the newly planted lawn.

A triangular, 1/3-acre section along the public road in the Meadowbrook area was graded and seeded with red fescue, a tough grass that presents a handsome appearance, particularly when left uncut.

Ground Cover Plots

Half of the display turf-plot area was replanted with drought-tolerant ground covers to further assist homeowners especially in hillside areas in finding attractive ground cover while conserving water.

Outdoor Display Area

A 60- x 100-foot saran covering, easily put up or taken down, was constructed to provide shade for outdoor events. The 6,000 square-foot area is in addition to an existing 6,000 square-foot saran shelter located north of the Juniper Display Garden. This

gives the Arboretum the ability to host large outdoor events under a 12,000 square-foot shelter.

Horticultural Services

Free horticultural and botanical information is available to the public at each of the Department's three gardens, but primarily and most extensively at the Arboretum in Arcadia. Here, the botanical information consultant in this biennial period answered over 22,000 telephone inquiries and wrote over 700 letters in response to questions from home gardeners and professional nurserymen about plant identification, disease, selection, and culture. The consultant also participated in the Department's Sunday Walks and Talks program and Adult Education program, and represented the Department at numerous meetings of professional Societies where the horticultural and environmental interests of the public were central topics.

The Arboretum superintendent, horticulturist, orchidist, and assistant nurserymen similarly participated, in varying degrees, in the Department's public programs.

Special Events, Meetings

Baldwin Bonanza

Each spring since 1970 the California Arboretum Foundation and its 300 member corps of volunteers, Las Voluntarias, have staged a "Baldwin Bonanza," a one-day, once-a-year plant sale to raise funds for some Arboretum special project and to make available to the public plants that are rare, unusual, difficult to find plants, as well as Arboretum Introductions.

Baldwin Bonanza numbers five and six were presented in this biennium, the proceeds set aside for the proposed new Hall of Environmental Education. Together they attracted over 30,000 people drawn by the opportunity to buy many plants not generally found in retail nurseries. The feature of the April 1976 Bonanza was a collection of cycad seedlings, fine accent plants, palm-like in appearance, and of special interest because they go back in botanic history over 200 million years. In great demand at both Bonanzas were a selection of Arboretum plant introductions, among them Blue Hibiscus (Hibiscus huegelii), Crown of Gold (Cassia excelsa), Australian Black Boy (Xanthorrhoea quadrangulata), Orchid Vine (Stygmaphyllon affine), Green Bottlebrush (Callistemon pachyphyllas), and many others.

Spring Extravaganza

This annual, two-day spring event is designed to give the public a close look at the Arboretum and its operations by holding open house at the greenhouses, nursery, library, herbarium, and research laboratory, and through special plant displays, demonstrations, and plant clinics set up to answer every conceivable

horticultural question. Twenty thousand people attended the Extravaganza held on May 21 and 22 in 1976 and 1977. In addition, many horticultural and plant organizations are invited to display their plants, among them the Pacific Rose Society, Epiphyllum Society, Pasadena Horticultural Society, American Begonia Society, Southern California Herb Society, Gladiolus Society, Santa Anita Bonsai Society.

Queen Anne Frolic

The Queen Anne Frolic is an evening dinner and entertainment benefit staged every two years by the California Arboretum Foundation's Las Voluntarias for its members and their guests with the assistance of Arboretum personnel. The Frolic of September 19, 1975, was attended by 800 people. As with the other fund-raising events in this period, net proceeds went to the fund for the construction of the Hall of Environmental Education.

Flower Shows and other Special Events at the Arboretum

Akebono Bonsai Society Show
American Ivy Society Show
Aril Society International Show
Baikoen Bonsai Society Show
Cactus and Succulent Society Show
Epiphyllum Society Show
Pacific Rose Society
Pasadena Horticultural Society Fall Mum Show
San Gabriel Valley American Begonia Society Show
Santa Anita Bonsai Society Show
Satsuki and Azalea Society Show
Southern California Camelia Society Show
Southern California Gladiolus Society Show
Southern California Hemerocallis and Amaryllis Society Show
Southern California Iris Society Winter Show
Southern California Iris Society Spring Show
Temple City Camellia Society Show
Theodore Payne Foundation Lectures
Foothill Art Society

Meetings at the Arboretum

During the 1975-1977, the Arboretum served as a meeting place for the societies, garden clubs, and civic organizations listed below.

Akebono Bonsai Society
American Ivy Society
Arcadia Garden Club
Arcadia Sierra Madre Newcomers
Aril Society
Cactus and Succulent Society of America
California Association of Nurserymen

California Garden Club
 Cymbidium Society
 Daffodil Society
 Entomological Club
 Epiphyllum Society
 Fern Society
 Floralia Guild
 Greater Los Angeles Rose Council
 Hemerocallis and Amaryllis Society
 Herb Society
 Highland Garden Club
 Hilltoppers Garden Club
 Pacific Rose Society
 San Gabriel Valley American Begonia Society
 San Gabriel Valley Cactus and Succulent Society
 San Gabriel Valley Orchid Hobbyists
 San Marino Garden Club
 Santa Anita Bonsai Society
 Southern California Iris Society
 Southern California Gladiolus Society
 Southland Orchid Show, Inc.
 Temple City Camellia Society

Attendance

Attendance increased 20 percent in the second half of the previous biennial period, mainly as a result of special events, newly introduced services and an intensive overall publicity effort. Although there was a small falling off in attendance in the first half of the current biennial period, there was an overall net gain in the period of 40,000.

1975-76

1976-77

806, 590

751,267

Weather

1975-76

1976-77

Highest temperature	111°F	June 27	105°F	July 26
Lowest temperature	29°F	Jan. 1	37°F	Mar. 15
Days of rain	32		38	
Rainiest month	4.59"	Feb.	6.38"	Dec.
Total rain	17.05"		18.34"	

DESCANSO GARDENS

The effects of the budgetary cutbacks were offset to some extent at Descanso Gardens by curtailing or postponing new developments, maximizing work output on top priority jobs, and through the assistance from the Southern California Camellia Council and the Descanso Gardens Guild.

Rose Gardens

The rose gardens at Descanso were designed by the world-famous rosarian, Dr. Walter E. Lammerts. Among the most extensive collections in the country, the gardens are divided into two sections. The History of Roses Section contains roses from the beginning of the first century. The other section is comprised of all of the All America Rose Selections beginning in 1940. Together the collection comprises of 6,000 rose bushes.

In this biennial period, a major project was undertaken to rearrange and transplant roses in the two sections so as to provide greater room for expansion in the All America Rose Selection section. By the end of the period, 1,000 existing roses had been transplanted and 200 new roses were added to the AARS section, thereby completing representation of all AARS award winners since 1940. While this work was going on, over 200 yards of compost was added as soil amendment and a new watering system was installed that requires less labor and also conserves water.

Oak Forest

One of the great attractions of Descanso Gardens is its 30-acre forest of native California Oaks. As a means of controlling the fungus (Armellaria mellea) that attacks the roots of these trees (see Research), basins were constructed around the base of each of the approximately 500 trees in the forest. As a result of this work, only three trees were lost in this biennial period compared with 15 lost in a single year prior to constructing the basins.

Camellia Forest

The 100,000 camellias growing under the canopy of Descanso's oaks are world famous for their extraordinary beauty of the many mature twenty-foot high bushes. Because camellias are among the most widely hybridized ornamental plants, keeping abreast of the new varieties is a continuing challenge.

In this biennial period, 150 new varieties were planted and the first pruning of the brushes in twenty-three years was undertaken.

Ground Covers

To reduce costs involved in planting and maintaining annual bedding plants and also to provide longer periods of color, cape gold (Arctotheca calendula), gazanias, and other perennial, colorful ground covers were planted in areas previously planted with annuals.

Special Events

1. Christmas Show

A major attraction each year in Los Angeles County is the "Nine Days of Christmas" show staged by the Descanso Gardens Guild with the assistance of the Descanso gardening staff. Annual attendance at this free show, which is mainly an exhibit of Christmas decorations from all parts of the world, is always well over 20,000.

2. Camellia Festival

The biggest flower show at Descanso each year is the Camellia Festival held on a weekend in February when the blooming period is at its peak. Attendance for this event averages over 10,000 with a peak attendance of over 21,000 in 1976.

Other events during this biennial period were:

Daffodil Show

Rose Pruning Demonstration

Glendale Symphony Orchestra Concert

Glendale Children's Playhouse

Art Festival

Bonsai Show

Chrysanthemum Show

Attendance

Descanso Gardens has experienced a slight drop in attendance in recent years. Part of this has been due to budgetary cutbacks resulting in curtailment of services and part can be attributed to the transportation difficulties experienced by the public because of gasoline shortages and rising prices. A small rise in attendance in the second half of this biennial period suggests that a steady, if slow, growth can be expected in the future, especially as the gardens develop horticulturally and expand attractions and services.

<u>1975-76</u>	<u>1976-77</u>
422,571	425,345

<u>Weather</u>	<u>1975-76</u>	<u>1976-77</u>
Highest Temperature	111 [°] F Aug. 29	104 [°] F Sept. 5,7
Lowest Temperature	26 [°] F Mar. 4	27 [°] F Mar. 15
Days of rain	32	26
Rainiest month	5.57" Feb.	5.39" Jan.
Total Rain	15.78"	16.35"

SOUTH COAST BOTANIC GARDEN

This one-time County trash dump has in 15 short years become a unique example of land reclamation admired and studied by land-use organizations all over the world. From a horticultural viewpoint and from a public viewpoint, it has enjoyed a phenomenal growth.

Building Dedication

The major development in this fiscal period was the completion of the new Administrative-Public Services Center, constructed in less than a year, counting from ground-breaking day on May 21, 1975 to the ribbon-cutting ceremony on May 8, 1976. The Center is composed of two one-story buildings connected by a common courtyard, one building consisting mainly of a 7,000 square-foot auditorium with a 2,400 square-foot dividable classroom and kitchen, and the other building divided into office space, a seminar room, and a reading room.

Principals at the dedication ceremony were Supervisor James Hayes in whose district the garden is located and through his personal efforts brought about the project; Mrs. Marilyn Stoke, president of the Board of Governors; John Anson Ford, former county supervisor and longtime supporter of the Department; Cliff Graham, president of the South Coast Botanic Garden Foundation; Mrs. Burton Chace, widow of the former supervisor of the district; John Anderson, mayor of Rolling Hills Estates, the town in which the garden is located; assemblyman Robert Beverly of the 46th district; Mrs. Frances Young, one of the founders of the garden and for many years president of the South Coast Botanic Garden Foundation; Donald P. Woolley, first superintendent of the garden; and Francis Ching, director of the Department of Arboreta and Botanic Gardens.

Ground Covers

The general appearance of the grounds has been greatly enhanced by the mass plantings of ground covers notably the Arboretum's introductions, the African Trailing Daisy (Osteospermum fruticosum) and the capegold (Arctotheca calendula). These plantings give spectacular color to the grounds most of the year and are very effective for soil erosion control on the slopes. Based upon the fact that the garden is sited on a sanitation landfill, many experimental plantings have been carried on due to the presence of subsidence and underground heat of the soil.

Lectures, Walks, Flower Show, Special Events

In this biennial period six Sunday morning garden walks and eight Sunday afternoon talks were presented by staff members before a combined attendance of 1,400 people. Four lectures were presented by the Theodore Payne Foundation.

In January, 1977, some 1,500 people attended a deciduous fruit tree pruning demonstration. To accommodate this large gathering, four two-man teams from the staff were assembled in the garden's fruiting orchard, each at different locations to demonstrate various pruning techniques and to answer questions. The procedure called for one member of the team to do the actual pruning while the other explained what was being done and then for both members to answer questions.

Also in the period were four weekend flower shows and the Annual Fiesta de Flores benefit presented by the South Coast Botanic Garden Foundation with assistance from the staff.

Meetings

The following organizations held meetings, luncheons, teas, seminars at the garden during 1975-1977:

Agricultural and Environmental Education, Teachers.
American Association of University of Women
Centinela California Association of Nurserymen
Costa Verde District of California Garden Clubs, Inc.
Daughters of the American Revolution
Delta Delta Delta
Eastern Star
Inglewood Dahlia Society
Japanese Doll and Bonsai Show
Lady Bug Garden Club
League of Women Voters
Los Angeles County Department of Health Services
Los Angeles County Medical Association Auxiliary
Officers' Wives Group
Neptunian Club
Palos Verdes Community Arts Association
Palos Verdes Peninsula Council PTA Workshop
Palos Verdes Peninsula School Board Retirement Committee
Palos Verdes Women's Club
Peninsula Chapter of the National Charity League
Rancho Vista PTA
Retired Senior Volunteer Program
Rolling Hills Community Association
Sandpipers, Inc.
Santa Monica African Violet Society
Silver Spur Garden Club
South Bay Bromeliad Associates
South Bay Herb Society
South Bay Orchid Society
South Bay Women's Conference of the Jewish Federation Council
South Coast Bonsai Association
South Coast Camellia Society
South Coast National Fuchsia Society
South Coast Rose Society

St. Catherine's Church
 St. Francis Church
 Torrance Memorial Hospital Auxiliary
 Westfield Park & Recreation District & Westfield Homeowner's Assoc.
 Women's Club of Wilmington

Attendance

Attendance at South Coast has increased over 25 percent since 1970. A continued increase is expected due to the population growth in the area and to the development of the garden and its services.

<u>1975-76</u>	<u>1976-77</u>
100,188	111,724

Weather

	<u>1975-76</u>	<u>1976-77</u>
Highest temperature	104 [°] F June 24	96 [°] F Nov. 4
Lowest temperature	26 [°] F Jan. 2	33 [°] F Jan. 11
Days of rain	15	14
Rainiest month	2.85" Feb.	5.21" Jan.
Total rain	5.52"	14.07"

EDUCATION - PUBLIC SERVICES

Adult Education Classes

The Department offers day and evening classes at each garden on a semester basis of 10 to 14 weeks in the spring and fall, and for six weeks in the summer. These classes, designed primarily to serve the horticultural interests of the home gardener, are co-sponsored by area colleges, namely Pasadena City College for the Arboretum and Descanso Gardens, and Los Angeles Harbor College for the South Coast Botanic Garden.

In this biennial period a total of 67 classes were conducted for 2,614 registered students in the following subjects:

Advanced Bonsai	Home Horticulture
Beginning Bonsai	Plant Identification
Container Gardening	Poisonous, Medicinal
Home Gardening; Fruit	& Edible Plants
& Berry Culture	Vegetable Gardening

A series of intensive short courses designed to accommodate adults wanting to cover a subject in less than a semester period, were introduced at the Los Angeles State and County Arboretum in 1972. Presented by the California Arboretum Foundation with the assistance of members of the Arboretum staff, the courses, consisting of two to four 3-hour sessions, were enthusiastically received and have been given each year since.

In this biennial period, a total of 9 minicourses were conducted for 316 registered students in the following subjects:

Botany	Patio Container Gardening
Bromeliads	Plant Propagation
Growing Bulbs in Containers	Poisonous, Mydicinal &
Hanging Baskets	-- Edible Plants
Indoor Container Gardening	Pruning Trees & Shrubs

Youth Education Program

The Youth Education program provides a basic gardening and nature-related curriculum that serves children 6 to 14 years of age both at their home school and at each of the Department's three gardens. The result of this program has been to instill in a large segment of the primary students of the Los Angeles County School District an interest in and some understanding of their natural environment.

1. Workshops

A total of 117 workshops were conducted at the three gardens in this biennial period. Scheduled after school, Saturday mornings, and during summer vacation, they provided training for 1,469 youngsters in the following subjects:

Advanced Gardening	Nature Craft
Art in Nature	Plant Adventures
Container Gardening	Plant Propagation
Exploring Nature	Pond Life
Indoor Gardens	Vegetable Gardening
Life in the Lagoon	

2. School Field Trips

Field trips for students in grades 3 through 12 are part of the curricula in most of the 95 school districts in Los Angeles County. The gardens of the Department of Arboreta and Botanic Gardens are popular study areas for they combine two basic areas of study -- the relationship between man and plants, and early California History -- that capture the imaginations of young minds.

At the Los Angeles State and County Arboretum, Descanso Gardens, and South Coast Botanic Garden, field leaders are mainly volunteers trained by staff education specialists. The student curricula is developed in accord with approved State of California text books in the social and natural science utilizing as a frame of reference the student's own school and home environment.

Following is a tabulation of school field trip attendance according to supervisorial districts:

	ARBORETUM		DESCANSO		SOUTH COAST		TOTAL
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	
District 1	3,797	2,249	684	526	30	321	7,607
District 2	3,585	3,883	3,985	2,615	1,738	2,334	18,140
District 3	3,956	3,786	2,003	2,164	595	1,084	13,552
District 4	2,002	2,116	1,471	995	2,869	2,399	11,852
District 5	2,725	3,179	2,531	2,459	112	191	11,197
TOTAL	16,065	15,213	10,674	8,759	5,344	6,293	62,348

3. Taking the Arboretum to the School

This program was developed in an effort to serve those schools for which field-trip busing is unavailable. To the extent possible, students in these schools were given the same instructions as those visiting the gardens. Using staff education personnel and volunteers at the Arboretum and South Coast Botanic Garden, 4,093 students were reached in 140 visits made to 56 schools in this two-year period.

4. Teacher In-Service Training

To further broaden the base of plant science instruction and its concomitant development of environmental awareness, staff education specialists gave a series of training sessions for elementary grade teachers both at schools and at the Arboretum and South Coast Botanic Garden.

In this biennial period 9 sessions were conducted for 140 teachers from Glendora, Los Angeles Unified, Palos Verdes, Pasadena, San Marino, and Torrance school districts.

Library

The Arboretum Plant Science Library is available on a reference basis to everyone. At the end of this biennium, its holdings periodically augmented by purchases and gifts, it contained approximately 24,000 catalogued books and pamphlets and 528 periodicals regularly subscribed to.

A log taken of serious users of the library's resources for one year showed a total of 2,600 persons, of which the public represented 50 percent, the staff 25 percent, and the balance students and professionals.

Public Services

Under its guiding principle that arboreta and botanic gardens are for the people, the Department offers a wide range of public services not generally available elsewhere in Los Angeles County. Some of these services are of immediate and fundamental benefit to the community. An example is the Department's response to the drought in Southern California.

Information about irrigation methods that conserve water, about the use of drought-tolerant plants, about the use of mulches and other related conservation practices, were widely disseminated to the public through leaflets, lectures, and radio and television announcements.

At the information center of each of its gardens the Department makes available to the public an assortment of free event cal-

endars, maps, bird lists, adult and youth education schedules, horticultural bulletins, and brochures. Most of this material is printed by the staff on an offset printing press located at the Arboretum.

In addition to class schedules, calendars, and similar material printed periodically throughout each year, the following new publications were produced in this biennium:

1. Brochures

Clear Air With Green Plants, 12 pages

A Walk Through History at the Los Angeles State and County Arboretum, 14 pages

2. Horticultural Bulletins

Lilacs in Southern California

Azaleas in Southern California

Growing Bulbs and Bulb-Like Plants in Containers

Home Vegetable Gardening Calendar for Southern California

Mulching

Sycamore Blight

Camellias in Southern California

Pruning Deciduous Fruit Trees

Water Conservation Through Good Watering Habits

Roses

3. Lasca Leaves

A major publication of the Department is the magazine Lasca Leaves. Published by the California Arboretum Foundation since 1951, it is distributed to foundation members and to educational institutions and botanic gardens all over the world. Formerly a quarterly, it is now issued six times a year as part of the national magazine, Garden, published by the Garden Society of the New York Botanical Garden. The incorporation of Lasca Leaves into Garden as a regional edition took place early in 1977.

In its new format Lasca Leaves occupies the first four and last four pages of a 32-page core containing articles by distinguished horticulturists, botanists, ecologists, and members of related arts and science. Page size of the new magazine is 8¼ x 11 inches providing room for full color illustrations.

4. Publications

Suggestions for Preventing Extinction of Rare and Endangered Plants. Gary Wallace. Bulletin Amer. Assoc. Bot. Gards. & Arboreta 9: 67-68, 1975.

Studies of the Monotropoideae (Ericaceae): Taxonomy and Distribution. Gary Wallace. Wasmann J. Biol. 33(1 & 2): 1-88, 1975.

Interrelationships of the subfamilies of the Ericaceae and Derivation of the Monotropoideae. Gary Wallace. Bot. Not. 128: 286-298, 1975.

Regeneration of Introduced Species of *Cistus* (*Cistaea*) After a Fire in Southern California. Kenneth Montgomery with T.W. Storid. Madrono. October 1976.

Long-term Responses of *Cistus* and Certain Other Introduced Shrubs on Disturbed Wildland Sites in Southern California. Kenneth Montgomery with Marcella Juhren. Ecology, 1976.

Studies of Monotropoideae (Ericaceae). Floral Nectaries: Anatomy and Function in Pollination Ecology. Gary Wallace. Amer. J. Bot. 64(2): 199-206, 1977.

Stimulation of Rhizomorph Production in *Armellaria mellea* by Tannic Acid. Paul Cheo. Phytopathology. 1977.

English Oak. Leonid Enari. Lasca Leaves, Sept. 1975

Coast Redwood. Leonid Enari. Lasca Leaves, Dec. 1975.

The Blue Gum. Leonid Enari. Lasca Leaves, March 1976.

Coffee. Leonid Enari. Lasca Leaves, June 1976.

Tea. Leonid Enari. Lasca Leaves, Dec. 1976.

Phoenix reclinata. David Deardorff. Lasca Leaves, Dec. 1976.

Platanus racemosa. David Deardorff. Garden/Lasca Leaves, March/April 1977.

Cocoa: Food of the Gods. Leonid Enari. Garden/Lasca Leaves, May/June 1977.

California LMving--The Ranchero. Sandy Snider. Lasca Leaves, Sept. 1975.

Rancho Santa Anita. Sandy Snider. Lasca Leaves, Dec. and Mar. 1975-76.

The Baldwin Legacy. Sandy Snider. Lasca Leaves, June 1976.

Historic Restoratio. Sandy Snider. Lasca Leaves, Dec. 1976.

Descanso Gardens--The Verdugo Years. Sandy Snider. Garden/Lasca Leaves, March/April 1977.

5. Lectures

Paul Cheo-

Home Gardening Class

"Mushroom and Fungi"

Church Group
 "Research Programs"
Home Gardening Class
 "Diseases of Fruit Trees"
San Marino Women's Garden Club
 "Diseases of Ornamental Plants"
County Superintendent of Schools
 "Plant Diseases"
Plant Pathologist Workshop
 "Ornamental Diseases"

Francis Ching-

International Shade Tree Conference, Western Chapter
 "The Arboreta in Changing Times"
Santa Cruz Arboretum Foundation
 "The Arboretum Meeting the Needs of a Community"
University of California, San Diego
 "Urban Beautification"
Pasadena Kiwanis
 "The Arboretum Meeting the Needs of a Community"
Los Angeles Chamber of Commerce
 "Urban Beautification--Luxury or Necessity?"
Las Voluntarias
 "The Need for Volunteers"
Pacific Camellia Society
 "The Arboretum Is For People"
Callaway Gardens & American Assoc. of Botanical Gardens
and Arboreta
 "Financial Planning"
Las Voluntarias
 "The Need for Volunteers"
Southern California Gardener's Federation
 "The Arboretum: Past, Present and Future"
Southern California Camellia Council
 "The Arboretum Is For People"
American Association of Botanical Gardens & Arboreta
 "Working With Landscape Architects"
International Society of Arboriculture
 "Contributions to Our Profession"
American Horticultural Society Congress
 "Plants and People"

David Deardorff-

Las Voluntarias

"Plants in the Home Environment--A Clinic on Houseplants"

Sunday Afternoon Talks & Spring Extravaganza

"Plants in the Home Environment"

Monrovia Garden Club

"Exotic Arboretum Trees"

South Coast Fiesta

"Drought Tolerant Plants"

Spring Extravaganza

"Plant Propagation"

Leonid Enari-

General Public

"Poisonous and Medicinal Plants"

Various groups (11)

"Poisonous, Medicinal, and Edible Plants"

County Probation Camps Nurses and Supervisors

"Narcotic and Poisonous Plants"

L.A. Children Hospital

"Poisonous & Medicinal Plants"

L.A. Poison Control Center

"Poisonous & Medicinal Plants"

Pasadena Medical Research Association

"Poisonous & Medicinal Plants"

Pasadena Physicians

"Poisonous & Medicinal Plants"

Beverly Hills Women's Club

"Poisonous & Medicinal Plants"

Alhambra Rotary Club

"Poisonous & Medicinal Plants"

Pasadena Masons

"Poisonous & Medicinal Plants"

Nurserymen's Association

"Poisonous & Medicinal Plants"

George Hanson-

Church Groups & Student Groups

"Research Programs"

Guayule Symposium

"Plant Breeding"

Edward Hartnagel-

South Coast Amigos
"Role of the Garden"

Riviera Garden Club
"Plant Propagation"

Silver Spur Garden Club
"Indoor Plants"

San Pedro Garden Club
"Plant Propagation"

South Bay Herb Society
"Plant Propagation"

Torrance Women's Club
"Propagation and Indoor Plants"

William Hawkinson-

San Diego-Imperial Counties Iris Society
"Iris"

Carlos Jativa-

Las Voluntarias
"Poisonous Fruit and Seeds of Ornamental Plants"

Botany Department of the Univ. of Calif. at Riverside
"A Saturday Walk"

Charles Lee-

Monrovia Nursery Company
"Arboretum Introductions"

Monrovia Nursery Company
"History of the Nursery Industry in California"

California Association of Nurserymen, Inland Chapter
"Camellias"

American Recreation and Turf Association
"Pest Control of Groundcovers"

George Lewis-

California Association of Nurserymen, Los Angeles Chapter
(15 monthly meetings)
"New Introductions"

Los Angeles Men's Garden Club
"Camellias"

Tim Lorman-

Year Around Garden Club, Whittier
"Fern Culture"

American Begonia Society, Whittier Chapter
"Bromeliads"

40's Club of Altadena
"Hanging Baskets"

San Gabriel Valley Begonia Society
"Bromeliads"

Kenneth R. Montgomery-

Herb Society
"Organic Gardens"

Little Garden Club of Pasadena
"Organic Gardens"

Junior League of Pasadena Garden Club
"Organic Gardens"

Church Groups and Student Groups
"Research Programs"

Water Conservation Seminar, Forest Lawn Auditorium
"Water Conservation and the Outdoor Environment"

South Coast Botanic Garden Fiesta de Flores
"Drought-Tolerant Plants and Water Conservation"

Spring Extravaganza
"Water Conservation"

John Provine-

Garden Planners
"The Arboretum"

Street Tree Seminar
"The Arboretum"

Sierra Madre Garden Club
"Plants Suitable for the Shade"

Inter-Counties Garden Club
"The Arboretum"

K.C.S.N. (radio station)
"The Spring Extravaganza"

Earl Ross-

San Gabriel Valley Orchid Hobbyists
(Classes at monthly meetings)

Orchid Society of Southern California
"Deciduous Orchids"

San Fernando Valley Orchid Society
"Orchids"

Orange County Orchid Specie Club
"Orchids"

South Coast Orchid Society
"Orchids"

Armand Sarinana-

California Association of Nurserymen
"Garden Development"

Palos Verdes Coordinating Council Forum
"Role of the Garden in the Community"

Rutgers University Research Team
"Garden Development"

Herb Society of South Coast
"Garden Development"

Palos Verdes Men's Breakfast Club
"Garden Development"

Street Tree Seminar
"Garden Development"

Sandpipers Women's Club
"Garden Development"

K.A.B.C.-TV
"Interview at the Gardens"

Sandy Snider-

Arcadia High School (3 classes)
"California Indian"

Arcadia High School (2 classes)
"Costume as Social History"

Arcadia High School (3 classes)
"California Indian"

Arcadia High School (5 classes)
"Women's History"

San Marino Elementary School (3 classes)
"How Grandmother Spent Her Day"

Las Voluntarias General Meeting
"History of Women's Fashion"

Arcadia High School (3 classes)
"History of Arcadia"

Japanese Summer Study Group
"California Indians"

Sunday Morning Walk, Arboretum
"History"

Gary Wallace-

Little Pasadena Garden Club
"Rare and Endangered Plants"

Iris Society
"California Native Plants"

6. Sunday Walks and Talks

In 1972 the Department introduced a series of year-round Sunday Morning Walks and Sunday Afternoon Talks at each of its gardens. Conducted by members of the staff, both proved to be very popular with the public. The walks, starting at 10 a.m., took visitors through greenhouses, historical buildings, and other areas not generally seen; the talks given at 2 p.m. and in the summer, outdoors, covered a wide range of topics of interest to the home gardener.

In addition to participating in this series, members of the research staff gave 26 talks on various horticultural and environmental subjects to garden clubs, college groups, professional nurserymen, and at local and state seminars.

Topics covered in the Sunday Afternoon Talks series for 1975-77.

Vegetable Gardening - Ronald Call
Container Gardening - John Provine
Poisonous, Medicinal Plants - Leonid Enari
Decorative Plants from Dinner Leftovers - Takao Niiya
Grafting - George Lewis
Pruning Deciduous Trees - Armand Sarinana
Indoor Container Gardening - Edward Hartnagel
Exotic Economic Plants - Leonid Enari
Plants in the Home Environment - David Deardorff
Composting - George Lewis
Shade Plants - John Provine
Growing and Planting Bulbs - George Lewis
Outdoor Container Gardening - Edward Hartnagel

7. Guided Tours

A daily feature at the Arboretum, Descanso Gardens, and South Coast Botanic Garden are the public tram tours with informative narration provided by professional tour guides. Highly popular, they are offered free of charge but donations, which help defray operating expenses, are encouraged. The number of passengers carried during this biennial period has been somewhat reduced owing to periods of "down" time for repair of aging vehicular equipment. It is estimated that 10 to 15 percent of the total attendance at each garden were given guided tours during this biennium, or roughly 185,000 people at the

Arboretum, 85,000 at Descanso Gardens, and 31,000 at South Coast.

8. Special Event, Media Services

The Department supplies the audio-visual, graphic arts, printed matter, special tour and other requirements associated with the flower shows, lectures, concerts, meetings, and special events held at each facility. It is broadly responsible for the safety, conduct, and requests of the 1.2 million people who visit the three gardens annually. Included in this category are the handling of complaints, documenting accidents, assisting the ill or injured, helping to curtail vandalism, issuing car passes and wheelchairs, issuing mosquito fish (gambusia) from an aquarium filled and maintained by tour guides, issuing brochures and other printed information, providing special tours for senior citizens and other minority groups, setting up audio-visual equipment, maintaining and constructing public signs and looking after the wildlife in each garden, all of which are classified as wildlife sanctuaries.

The Department also serves the communication media with news releases, features, photographs and radio spot announcements and arranges and assists television location broadcasts.

California Historical Landmarks

The public is drawn to the Arboretum not only because of its botanical and horticultural attractions but also because the land and buildings it inherited reflect several major eras in California history. Three state landmarks -- The Queen Anne Cottage, the Hugo Reid Adobe, the Coach Barn, and the restored Santa Anita Depot, designated a state historic monument -- are the principal attractions for the public and for students on school field trips. Tours of these buildings and the entire preserve are given to organized groups by the staff historian and volunteers.

Displays

The rotunda just inside the Arboretum main entrance is the scene of seasonal displays throughout the year. One showcase is given over to the display of orchids that are in flower. Another presents a different historical display each month, drawing on the extensive collection of artifacts and memorabilia maintained and developed by the historical section. Still another is geared to current events and acquisitions, such as the latest books from the Plant Science Library.

Sprigs of plants that are in flower are displayed under a huge map as a way of letting visitors know what is in bloom. Different kinds of ivies grow in containers submerged in small beds around a center bulletin board. At Christmas time the entire area

is planted and decorated with material appropriate to the season. Attracting particular attention is the Christmas display set up by the Southern California chapter of the American Herb Society made up of many kinds of wreaths formed from common and uncommon plant material. During the holiday season all the Arboretum's historical buildings are decorated with traditional Christmas ornaments and scenes.

RESEARCH

The Research Division is composed of a staff of ten full-time employees augmented by 10 to 25 volunteer laboratory and field aids, depending on the need.

The Division has been occupied in three areas: 1) research projects; 2) providing services of immediate benefit to the public; 3) the operation of integral sections of the Division - Plant Records, Herbarium.

Environment-Related Research Projects

1. Guayule

The Research Division was the beneficiary of a major National Science Foundation grant received by the California Arboretum Foundation, the nonprofit citizen-support organization for the Los Angeles State and County Arboretum.

The grant, in the amount of \$97,600 for the first year with a similar amount for each of the two additional years planned, is for a research project aimed at increasing the latex yield of the rubber-bearing shrub, guayule (Parthenium argen-tatum).

The grant is the result of the federal government's recognition of natural rubber as a strategic commodity in the United States economy and its interest in developing a domestic alternative to current sources of natural rubber outside the country.

The project involves seed collection to provide a wide variety of germ plasm; hybridization to develop new plant varieties; selection for yield potential; studies to determine optimum cultural conditions; and maintenance of breeding and test stock.

By the end of the biennial period covered in this report, over 10,000 plants were in cultivation, either in the greenhouse, the nursery, or in a field plot.

2. Crape myrtle

Breeding studies with crape myrtle (Lagerstroemia indica) aimed at improving tolerance to powdery mildew and maintaining good flower color and size have continued, with data being accumulated from hybridization and field tests

3. South African Trailing Daisy

The increased use of South African trailing daisies (Osteospermum fruticosum) as a low-maintenance ground cover in

southern California had led to an increase in sclerotinia, a fungus disease that causes the roots to rot. A breeding project was instituted to find varieties resistant to the disease. In this biennial period, over 3,000 hybrid seedlings of Osteospermum were inoculated with the fungus, about 30% surviving. Cuttings were made from the survival seedlings with a view to developing a secondary, more strongly resistant selection.

4. Oak root-rot investigation

As part of a continuing long-range investigation of oak root-rot fungus (Armillaria mellea), so widely prevalent in southern California, a study of the effect of tannic acid on the growth of the fungus was initiated in this period. Partial results of the study will be published in the science journal, Phytopathology.

In another study of the disease, various chemicals were tested for their comparative effectiveness against Armillaria survival in soil. Two chemicals, urea at 2% and sodium nitrite at 1%, proved effective in a laboratory test of killing Armillaria after two weeks of treatment.

5. Studies on virus survival in soil

In May 1977, the California Arboretum Foundation received a grant from the National Science Foundation to underwrite an investigation of how long viruses found in processed sewage water survive after the water is used to irrigate land. The grant, in the amount of \$39,000, is part of the NSF program, Research Applied to National Needs, which reflects federal concern over the problem of disposing of municipal waste water and, also, federal interest in using effluent water for agricultural irrigation if possible.

The main object of the project is to isolate disease-causing viruses in the waste water and determine how long they will live in soil. The project had just started at the end of this biennial period.

6. Ecology of introduced shrubs

The Division has been studying the regenerative, fire retardant, and other characteristics of native and introduced plant species in the fire-prone foothill areas of southern California for over 20 years. Data developed in that period has been disseminated to the public, particularly that segment living in high fire-hazard areas, in the form of brochures, leaflets, lectures, and radio and television announcements advising on steps to take to control and reduce property destruction resulting from massive fires. These studies have been concluded in this biennial period with completion of field analyses of introduced shrubs, flammability of Mediterranean-type shrubs, and observation of a particularly low-

fuel variety of rockrose (Cistus crispus) in a field planting at Descanso Gardens.

7. Orchid species propagation

Many common as well as rare orchid species are becoming increasingly difficult to obtain because of worldwide protectionist programs similar to the endangered species program associated with animals. As a consequence, a program to propagate select orchid species from seed was started at the Arboretum in the second half of this biennial period. In addition to its conservation aspects, the program has as its objective the increase in the number of specimens for use in the Arboretum's own collection and for use in trading with other collectors and botanic gardens

Direct Public Service

Plant identification and disease diagnosis

Approximately 2,500 pieces of plant material brought or sent in were identified for the public, nurserymen, other county departments, and law enforcement agencies. An average of 30 plant specimens per week were diagnosed for disease, and corrective treatment was recommended.

Operation of Integral Sections

1. Plant Records

This section is responsible for maintaining up-to-date plant data, essentials of which are periodically sent to the Plant Science Data Center of the American Horticultural Society at Mt. Vernon, Virginia. It is also responsible for plant labeling, for the worldwide seed distribution program, for collection of weather data for the U.S. Weather Bureau Fruit-Frost Warning Service, and for a new mapping program soon to be implemented.

Two notable additions to Arboretum plant records were the accessioning of 1,200 orchids and 1,550 greenhouse plants, mainly begonias. The accessions represented the contents of four orchid houses and two large greenhouses and also reflected a stabilization of their contents.

The continuous need to make new or replace old plant identification labels was facilitated by the acquisition of an Addressograph Graphotype machine on which labels are typed as on a typewriter.

Staff gardeners collected 230 species of seed which, after cleaning and packaging, were recorded in an Index Seminum, copies of which were mailed to 400 botanic gardens around the world and to California Arboretum Foundation members. In

response to subsequent seed requests, 2,752 packets were mailed to the botanic gardens.

2. Herbarium

968 specimens were received by the herbarium in this biennial period, 444 of which were retained, the balance designated for exchange.

As of June 30, 1977, the total number of accessioned herbarium sheets was 15,954.

Approximately 2,000 specimens were sent to other herbaria in this biennial period, among them the Arnold Arboretum, Boston; Barnes Arboretum, Merion, Ohio; California Academy of Science, San Francisco; and Santa Barbara Botanic Garden.

AFFILIATED SUPPORTING FOUNDATIONS

The monetary and volunteer work contributions of affiliated non-profit supporting foundations make possible the implementation of numerous public programs that supplement the County operation of the Department.

California Arboretum Foundation

The California Arboretum Foundation is the oldest non-profit organization affiliated with this Department, originally being founded in 1948. The Foundation had 3,182 members as of June 30, 1977. Depending on the category of membership, dues range from fifteen to a thousand dollars a year. Members receive special rates for education classes; the Foundation newsletter, the Department's bimonthly magazine LASCA Leaves incorporated with the national magazine, Garden; an Arboretum plant introduction once a year; and invitations to previews and special field trips.

Within the membership are two service groups, Las Voluntarias, composed of 270 women; and Los Ayudantes, composed of 25 men.

Annual meetings in this biennium were held on May 5, 1976, and June 21, 1977. Tours of the new Prehistoric Garden and Jungle and the Tropical Greenhouse were featured.

The general business of the Foundation is conducted by a Board of Trustees composed of Foundation members; 39 in 1977. The Board is guided by an Executive Committee made up of five Executive officers and six persons selected from the membership. This committee meets monthly to review Foundation business and to make recommendations for the full board to act on in their quarterly meetings.

Special Events

The biennial Queen Anne Frolic benefit was held on September 19, 1975. \$4,660 in profits was realized to swell the fund for the proposed Hall of Environmental Education. The campaign to raise at least a pledged five hundred thousand dollars was officially launched on this evening.

Entries made in the horticultural section at the Los Angeles County Fair in the name of the California Arboretum Foundation earned first prizes of three hundred dollars each in both September 1975 and 1976.

The second Fota contest was held in November 1975. The response from both the contestants and the viewing public was most gratifying.

The largest benefit each year is the plant and craft sale, the

Baldwin Bonanza. On April 6, 1976, the Bonanza was put on with the help of the Arboretum staff and 400 volunteers (230 Las Voluntarias and Foundation members plus their families and friends). \$33,000 was raised. On May 1, 1977 over \$45,000 was netted from Bonanza number seven. Staff and 350 volunteers helped in this effort. The proceeds from both Bonanzas were put towards construction of the Hall of Environmental Education.

A 'Spring Extravaganza', an open house, was held each year in May. The California Arboretum Foundation joined the Arboretum staff, many horticultural groups and garden societies to present pertinent information to interested members of the general public through lectures, demonstrations and displays.

On Going Programs

The California Arboretum Foundation Gift Shop is staffed by volunteers on week days and some holidays. The craft committee keeps the Shop well supplied with saleable items made from natural materials gathered by other volunteers. Their products are also sold at the Bonanza. Members of the Greenhouse committee grow plants in their own greenhouse to be sold both in the Shop and at the Baldwin Bonanza.

Volunteers assist the Foundation's professional staff with typing and the preparation of mailings. They also assist the public at the Information Center five full days, and keep the Las Voluntarias office open five mornings a week.

They are responsible for the "Garden For All Seasons," which displays vegetables and flowers of great interest to the public. Flowers from the Garden are used in arrangements in the Home Demonstration Gardens, the Peacock Pavilion, the historical buildings and for special events which are sponsored by the Foundation. Volunteers also use the flowers together with other plant material from the Arboretum to illustrate "What's In Bloom At The Arboretum" displayed in the rotunda. Other Las Voluntarias occupy the Tropical Greenhouse five afternoons a week so that it can be opened for public viewing. Volunteer help is most welcome in the Youth Education Department, the Library, Research Division and the Herbarium.

Youth has been well served by forty-four Field Leaders who gave 927 guided nature or history tours to school children. 15,831 children toured in the 1975-76 school year, and 15,024 in the 1976-77 year. In the 1975-76 period four docents took the "Arboretum Story" into the classroom. They reached 615 children in this manner. The Youth Education Department was given help in the preparation of 1,000 Arbor Day kits each year. These were distributed to Los Angeles County Schools along with trees grown at the Arboretum. The Volunteers in the History Section give tours, keep the Santa Anita Depot open to the public two after-

noons a week, and clean and decorate the buildings for special events. They play hostess to many interested groups. In addition to their regular research activities, an "oral" history program was initiated in 1976. The purpose of this is to record interviews with people in the area who knew the Baldwin family or who have knowledge of Arcadia during the "Baldwin" period. In June 1977 Las Voluntarias raised \$400 at a Mexican cooking demonstration given by Ray Marshall of the Acapulco Restaurants. These monies were given to the History Department for the preservation of the historical costumes.

The Foundation continues to sponsor Sunday walks and lectures, Mini-courses and classes at the Arboretum. It also sponsored 16 flower shows in 1975-76 and 20 flower shows in 1976-77. The Foundation gave a Christmas luncheon for the Arboretum staff in both years.

Publications

In 1977, the Foundation assumed the responsibility for the printing of the booklets "Poisonous Plants in Southern California," "Self-Guided Tour Through the North Section of the Los Angeles State and County Arboretum," and "A Walk Through History at the Los Angeles State and County Arboretum." A nominal charge is made for these booklets to help recover printing costs.

Donations and Services

The total monetary donations made by the Foundation for various programs, operating needs and the building fund for the proposed Hall of Environmental Education during this biennium was \$391,180. The value of the various non-monetary donations made during this period such as plants and books was \$118,796. The volunteer hours contributed for various programs, activities, and special public events totaled 60,447 during the two-year period.

Descanso Gardens Guild

The Descanso Gardens Guild is a non-profit organization composed of citizens who assist in the development and through its various programs benefit the gardens, the schools, and the community. It is governed by a Board of Trustees who hold office on a rotating basis. Guild membership as of June 30, 1977, was 911. Of this number, 97 are life members.

Special Events

The Guild sponsored many special public events:

Annual Christmas Decoration Show -- this is one of the largest events of the year at Descanso Gardens. It usually runs for nine days and attracted 23,500 people in 1975 and

25,600 in 1976.

Annual Arts and Crafts Festival which attracted 3,800 in 1975 and 4,200 in 1976.

Paseo de Descanso -- a special fund raising tour given for the public. The tour featured stopping points in the garden manned by volunteer information aids and a luncheon.

Sunday afternoon concerts and dance performances by various groups from all parts of Los Angeles County.

Various flower shows.

On October 17, 1976, the tenth anniversary celebration of the construction and donation of the Oriental Tea House was held. Honored at this event were Mrs. Judge Smith, a founder and first president of the Guild, who was instrumental in the success of the project and members of the Japanese community who assisted in installing the lovely Japanese Garden adjoining the Tea House.

Education Programs

In addition to the on-going program of conducting gardening classes for the handicapped children from schools in the surrounding communities, the Guild sponsored Mini-courses on horticultural related subjects, bonsai classes, art classes, and cooking classes, and various special horticultural tours through the gardens.

Donations and Services

A total of 30,333 volunteer hours were contributed by members of the Guild during this biennium. Activities included conducting educational walking tours for school children, staffing the gift shop, information center, and special events sponsored by the Guild. A total of \$40,690 was donated this biennium for various projects and to meet emergency operating needs of Descanso Gardens.

Southern California Camellia Council

The Southern California Camellia Council is another support organization for Descanso Gardens. The affiliates of the Council are Los Angeles Camellia Society, Orange County Camellia Society, Pacific Camellia Society, Pomona Valley Camellia Society, San Diego Camellia Society, Southern California Camellia Society, and the Temple City Camellia Society.

The major event which they sponsor at Descanso Gardens is the Camellia Festival. For this event, over 1,000 hours of volunteer time is contributed for setting up for the show annually. During the biennium, members of the Council assisted the regular staff

at the Gardens in trimming the thousands of camellias in the camellia forest which had become overly dense. On August 20, 1976, the Council co-sponsored a highly successful fund-raising banquet in the Gardens with the Descanso Gardens Guild.

Donations and Services

During the biennium, members of the Council contributed approximately 6,000 hours of volunteer time to Garden related activities. In addition, the Council donated a reference library of horticultural books, various plants, building equipment and supply items, approximately 100 specimen camellias and the cost of maintenance of the public tram which it has done for many years.

South Coast Botanic Garden Foundation

The South Coast Botanic Garden Foundation was originally incorporated in 1961. In this biennial period, the Foundation divided its efforts between initiating and staging fund-raising events and serving the garden through its corps of volunteers.

Membership

A 25 percent increase in Foundation membership brought total enrollment to 515 as of June 30, 1977. Minimum dues were increased from ten to fifteen dollars a year, in part to cover the increased subscription costs to each member for Garden, the new Department bimonthly magazine.

An amendment to Foundation bylaws, made at the annual meeting of May 26, 1976, increased membership on the Board of Directors to 17, an increase of two persons.

Building Fund

In furtherance of its pledge to raise \$200,000 toward payment of construction costs for the new Administrative-Public Services Center, the Foundation turned over \$40,000 to the County in this biennial period.

Special Events

The major fund-raising benefit of the Foundation, and the major garden attraction, is the annual Fiesta de Flores, a two-day weekend affair in May. Always a gala event, in 1976, with the opening of the new Center, over 7,100 people came to enjoy the many plant exhibits, the twice-a-day garden lectures in the new lecture hall, the plant sales, and the South Bay and Peninsula musicians and painters who added sound and color in the inner patio. In 1977, attendance increased to over 7,600 for this event.

A special attraction of the Fiesta these two years was the

"Discovery Walk," a special tour for the public developed by the Foundation with stopping points manned by volunteer information aids. The Foundation has planned to make the "Discovery Walk" a recurring feature.

Donations and Services

Donations in this period included an expenditure of \$1,259 for equipment, \$2,000 to cover costs of renovating and relocating a greenhouse for use in the Education Garden Center, 416 books and pamphlets for the library, and a silver coffee and tea set received from Mrs. Burton Chace in memory of her late husband and longtime County supervisor.

The Foundation estimated that its volunteers gave 9,000 hours of service to the garden in this two-year period. Services were primarily in the following categories: school field trip guides, information aids, office duties, publicity, public events.

F I N A N C I A L R E P O R T

1975 - 77

DEPARTMENTAL SUMMARY

1975 - 76

	<u>APPROPRIATION</u>	<u>EXPENDITURE</u>	<u>BALANCE</u>
Salaries & Wages	\$ 1,718,266	\$ 1,690,901	\$ 27,365
Services & Supplies	188,858	158,650	30,208
Capital Outlay Equipment	21,230	18,993	2,237
TOTAL DEPARTMENT	\$ 1,928,354	\$ 1,868,544	\$ 59,810
Number of Budgeted Positions	135.9		

1976 - 77

	<u>APPROPRIATION</u>	<u>EXPENDITURE</u>	<u>BALANCE</u>
Salaries & Wages	\$ 1,753,543	\$ 1,685,573	\$ 67,970
Services & Supplies	151,878	146,060	5,818
Capital Outlay Equipment	1,935	1,569	366
TOTAL DEPARTMENT	\$ 1,907,356	\$ 1,833,202	\$ 74,154
Number of Budgeted Positions	131.9		

CALIFORNIA ARBORETUM FOUNDATION

- 75-76 - MRS. JOHN A. GRIVICH, PRESIDENT
76-77 - MRS. LELAND E. LARSON, PRESIDENT

DESCANSO GARDENS GUILD

- 75-76 - MRS. NANCY DUNN, PRESIDENT
76-77 - MRS. NANCY DUNN, PRESIDENT

SOUTH COAST BOTANIC GARDEN FOUNDATION

- 75-76 - MR. CLIFFORD GRAHAM, PRESIDENT
76-77 - MR. EUGENE HILLMAN, PRESIDENT

SOUTHERN CALIFORNIA CAMELLIA COUNCIL

- 75-76 - MR. GRADY PERIGAN, PRESIDENT
76-77 - MR. MELVIN GUM, PRESIDENT